What is claimed is:

1. An exposure recording apparatus for recording a two-dimensional image on an image recording material by applying a light beam emitted from a light source to the image recording material to scan the image recording material relatively in a main scanning direction and in an auxiliary scanning direction, comprising:

light beam deflecting means disposed in a light path of said light beam, for deflecting said light beam a small distance in a direction different from said main scanning direction, based on a switching signal;

delay signal generating means for generating a delay signal delayed from said switching signal by a predetermined time, depending on the time required for said light beam deflecting means to deflect said light beam;

light beam modulating means for modulating said light beam with image information according to said delay signal; and

wherein the light beam is deflected the small distance in the direction different from said main scanning direction to generate a plurality of main scanning lines on the image recording material to record a two-dimensional image thereon by exposure of the image recording material to the light beam.

2. An exposure recording apparatus according to claim

- 17 -

1, further comprising:

main scanning position detecting means for detecting the position in the main scanning direction of said light beam with respect to said image recording material; and

switching signal generating means for generating said switching signal based on a main scanning position detecting signal from said scanning position detecting means.

3. An exposure recording apparatus according to claim 1, wherein said light beam deflecting means comprises an acousto-optic deflector.

4. An exposure recording apparatus according to claim 1, wherein said delay signal generating means comprises:

a measuring unit for measuring time after said switching signal is generated;

a first comparator for comparing the measured time with a predetermined delay setting time; and

a delay signal output unit for outputting said delay signal according to an output signal from said first comparator when the measured time and said predetermined delay setting time are in conformity with each other.

5. An exposure recording apparatus according to claim 4, wherein said delay signal generating means further comprises:

a second comparator for comparing a duty setting time

relative to duty ratios of a plurality of deflected states
of said light beam deflected by said light beam deflecting
means, with said time measured by said measuring unit; and

a delay signal switching unit for switching said delay
signal according to an output signal from said second
comparator when said duty setting time and said measured
time are in conformity with each other.

6. An exposure recording apparatus according to claim
1, wherein said delay signal generating means comprises:

a first delay unit for coarsely adjusting said delay
signal; and

a second delay unit for finely adjusting the delay
signal which has been coarsely adjusted by said first delay
unit.

7. An exposure recording apparatus according to claim
6, wherein said delay signal generating means further
comprises:

a first register for holding coarse adjustment data for
coarsely adjusting said delay signal; and

a second register for holding fine adjustment data for
finely adjusting the delay signal which has been coarsely
adjusted based on said coarse adjustment data.

8. An exposure recording apparatus according to claim
6, wherein said second delay unit comprises a delay element.

- 19 -

9. An exposure recording apparatus according to claim 1, wherein said direction in which said light beam is deflected by said light beam deflecting means comprises said auxiliary scanning direction.

10. An exposure recording apparatus according to claim 1, wherein said direction in which said light beam is deflected by said light beam deflecting means is different from either one of said main scanning direction and said auxiliary scanning direction.